

## **REMARKS**

The Office Action mailed November 16, 2006 has been carefully reviewed along with the references cited therein. In the subject Office Action claims 1-7, 12 and 13 were rejected under 35 USC § 102(b) as being anticipated by Eichelberger (U.S. Patent No. 5,452,182). Claim 1 was rejected under 35 USC § 102(e) as being anticipated by Yen (U.S. Patent No. 6,612,717). Claims 8-11 were rejected under 35 USC § 103(a) as being unpatentable over Eichelberger as applied to claim 1 above, and further in view of Azar (U.S. Patent No. 5,920,458). Claims 1, 2, 4, 6, 7, 8, 12 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bachl (U.S. Patent No. 6,299,337) in view of Hochstein (U.S. Patent No. 6,517,218). Claims 9-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the modified board of Bachl as applied to claim 1 above, and further in view of Azar. Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the modified board of Bachl as applied to claim 1 above, and further in view of Kirby (U.S. Patent No. 4,563,725). Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the modified board of Bachl as applied to claim 1 above, and further in view of Haley (U.S. Patent No. 5,506,756) and Pastore et al. (U.S. Patent No. 5,285,352).

In this amendment, Applicants have amended claim 1 and added new independent claim 60. Also, claims 14-27, 30-42, and 45-57 have been cancelled from the application without prejudice. These claims may be pursued in a divisional application. Withdrawn claims 28, 29, 43 and 44 have been amended. Claim 28 has been amended to depend from new claim 73 and claim 43 has been amended to depend from new claim 74. New dependent claims 61-72 have also been added to the application. These new dependent claims are similar to original claims 2-13, but they depend from new independent claim 60.

### **Claim Rejections – 35 USC § 102**

Claim 1 stands rejected under § 102(b) as being anticipated by Eichelberger. Claim 1 has been amended to recite "said removed portions being located where said circuit traces are not present." Support for this language can be found at page 6, lines 17-20 in Applicants' disclosure. Eichelberger discloses at column 8, lines 12-16 that "[a] pattern of metal conductors 34 is disposed on the upper surface of the dielectric layer 32 and makes

contact to various contact pads (only one shown) of the chips through via holes (only one shown) in the dielectric layer 32." With reference to Figure 1 of Eichelberger, the metal conductor 34, which the Office Action equates to Applicant's circuit traces, covers the via hole, which the Office Action equates to Applicant's removed portions. In other words, the removed portions disclosed in Eichelberger are located where the circuit traces are present. Accordingly, claim 1 has been amended to define over Eichelberger.

Claim 1 stands rejected under § 102(e) as being anticipated by Yen. Yen has an effective date of August 15, 2001. Accompanying this Amendment, Applicants submit a Declaration under 37 CFR § 1.131 establishing completion of the invention in the United States prior to the effective date of Yen. Accordingly, Applicants respectfully request that the Examiner remove this rejection.

#### Claim Rejections – 35 USC § 103

Claim 1 stands rejected under § 103(a) as being unpatentable over Bachl as in view of Hochstein. Claim 1 has been amended to recite "the interconnect structure remains flexible about at least two intersecting mutually perpendicular axes." Support for this limitation is found at least in Figures 1, 2 and 5 and the first full paragraph on page 6 of Applicants' disclosure. Bachl discloses a flexible printed circuit board 1 bonded onto a plurality of rigid printed circuit boards 2. (See Figure 1 of Bachl copied below).

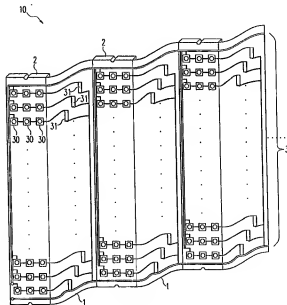


Fig. 1

The rigid PCBs 2 are spaced from one another in the horizontal direction (per the orientation of Figure 1). The flexible PCB 1 extends from the upper horizontal edge of the rigid PCB 2 all the way to the lower horizontal edge. Accordingly, the interconnect structure is not flexible, i.e. capable of being bent to a shape that has a radius of curvature less than about 10 cm, about the horizontal axis. Moreover, the rigid PCB provides structural support to the LED module 10 when it is inserted into a luminaire housing 20 (see Figure 3A). Bending about the horizontal axis would result in the LEDs 30 not being fixed within the housing, which would destroy the intended function of the Bachl device. Accordingly, Applicants submit that amended claim 1 now defines over the cited references.

#### **New Claims**

Claim 60 recites limitations for the flexible dielectric film and the circuit traces that are similar to amended claim 1. Claim 60 further recites that a first heat sink is spaced from a second heat sink in a first direction and the first heat sink is spaced from a third heat sink in a second direction that is not parallel to the first direction. Support for this limitation is found at least in Figures 1, 2 and 5 and the first full paragraph on page 6 of Applicants' disclosure. In Bachl, the rigid PCBs 2 are all spaced from one another in the horizontal direction (per the orientation of Figure 1). Accordingly, claim 60, and those claims that depend from 60, define over the cited references.

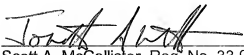
### CONCLUSION

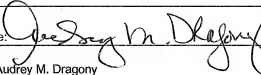
All formal and informal matters having been addressed, it is respectfully submitted that this application is in condition for allowance. If the Examiner is of the view that all of the pending claims of the application are not in clear condition for allowance, it is requested that the Examiner telephone the undersigned for purposes of conducting a telephone interview to resolve any differences. Accordingly, an early notice of allowance is earnestly solicited.

Respectfully submitted,

FAY SHARPE LLP

March 16, 2007  
Date

  
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Scott A. McCollister, Reg. No. 33,961  
Jonathan A. Withrow, Reg. No. 54,548  
1100 Superior Avenue, Seventh Floor  
Cleveland, OH 44114-2579  
216-861-5582

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